

IN THE CLAIMS:

Please amend claim 6 as shown in the complete list of claims that is presented below.

1. (original) A method for frequency conversion in a receiver, comprising the steps of:

receiving a signal having a radio frequency and carrying information on a plurality of channels;

selecting one of the channels;

converting the signal from the radio frequency to a first variable frequency determined by the selected channel; and

converting the signal from the first frequency to a second frequency.

2. (original) The method as claimed in claim 1, wherein the first frequency is determined so that noise coupled from the other channels into the selected channel is minimized.

3. (original) The method as claimed in claim 1, wherein the first frequency is higher than the radio frequency.

4. (original) The method as claimed in claim 1, wherein the second frequency is fixed for all the channels.

5. (original) The method as claimed in claim 1, wherein the second frequency is a baseband frequency.

6. (currently amended) The method as claimed in claim 1 further comprising the step of:

converting the signal from the second frequency to a third ~~frequency~~. frequency,
wherein the second and third frequencies are intermediate frequencies.

7. (original) The method as claimed in claim 6, wherein the first frequency is determined to minimize noise coupled from the other channels into the selected channel.

8. (original) The method as claimed in claim 6, wherein the first frequency is higher than the radio frequency.

9. (original) The method as claimed in claim 6, wherein the second frequency is fixed for all the channels.

10. (original) The method as claimed in claim 6, wherein the second frequency is lower than the first frequency.

11. (original) The method as claimed in claim 6, wherein the third frequency is fixed for all the channels.

12. (original) The method as claimed in claim 6, wherein the third frequency is a baseband frequency.

13. (original) A receiver comprising:
an antenna receiving an RF signal carrying information on a plurality of channels;
a first local oscillator generating a first oscillating signal having a first frequency;
a first mixer mixing the RF signal with the first oscillating signal to generate an intermediate signal;

a second local oscillator generating a second oscillating signal having a second frequency; and

a second mixer mixing the intermediate signal with the second oscillating signal to generate a baseband signal;

wherein a frequency of the intermediate signal is variable and determined by the selected channel.

14. (original) The receiver as claimed in claim 13, wherein the frequency of the intermediate signal is determined so that noise coupled from the other channels into the selected channel is minimized.

15. (original) The receiver as claimed in claim 13, wherein the first oscillator comprises:

- a first frequency divider dividing a frequency f_R of a reference signal by a divisor N ;

- a phase frequency detector having a first input coupled to an output of the first frequency divider;

- a charge pump having an input coupled to an output of the phase frequency detector;

- a loop filter having an input coupled to an output of the charge pump;

- a voltage controlled oscillator having an input coupled to an output of the loop filter;

- a second frequency divider dividing a frequency of a signal output from the voltage controlled oscillator by a divisor P and outputting the first oscillating signal; and

- a frequency multiplier multiplying the first oscillating signal by a multiplier M and having an output coupled to a second input of the phase frequency detector.

16. (original) The receiver as claimed in claim 15, wherein the divisors N and P , and the multiplier M are determined by the selected channel.

17. (original) The receiver as claimed in claim 13 further comprising a low noise amplifier coupled between the antenna and the first mixer to amplify the RF signal.

18. (original) The receiver as claimed in claim 13 further comprises a SAW driver coupled to an output of the second mixer.

19. (original) The receiver as claimed in claim 13, wherein the first and second mixers are image rejection mixers.

20. (original) A receiver comprising:
an antenna receiving an RF signal carrying information in a plurality of channels;
a first local oscillator generating a first oscillating signal having a first frequency;
a first mixer mixing the RF signal with the first oscillating signal to generate a first intermediate signal;
a second local oscillator generating a second oscillating signal having a second frequency;
a second mixer mixing the first intermediate signal with the second oscillating signal to generate a second intermediate signal;
a third local oscillator generating a third oscillating signal having a third frequency;
and
a third mixer mixing the second intermediate signal with the third oscillating signal to generate a baseband signal;
wherein a frequency of the first intermediate signal is variable and determined by the selected channel.

21. (original) The receiver as claimed in claim 20, wherein the frequency of the first intermediate signal is determined so that noise coupled from the other channels into the selected channel is minimized.

22. (original) The receiver as claimed in claim 20, wherein each of the first and second oscillator comprises:
a first frequency divider dividing a frequency F_R of a reference signal by a divisor N ;
a phase frequency detector having a first input coupled to an output of the first frequency divider;
a charge pump having an input coupled to an output of the phase frequency detector;
a loop filter having an input coupled to an output of the charge pump;
a voltage controlled oscillator having an input coupled to an output of the loop filter;

a second frequency divider dividing a frequency of a signal output from the voltage controlled oscillator by a divisor P and outputting the first oscillating signal; and

a frequency multiplier multiplying the first oscillating signal by a multiplier M and having an output coupled to a second input of the phase frequency detector.

23. (original) The receiver as claimed in claim 22, wherein the divisors N and P, and the multiplier M are determined by the selected channel.

24. (original) The receiver as claimed in claim 20 further comprising a low noise amplifier coupled between the antenna and the first mixer to amplify the RF signal.

25. (original) The receiver as claimed in claim 20 further comprises a SAW driver coupled to an output of the third mixer.

26. (original) The receiver as claimed in claim 20, wherein the first, second and third mixers are image rejection mixers.